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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,697	-08/31/2000	Duncan M. Kitchen	INTL-0406-US(P8989)	3821

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EXAMINER

NGUYEN, LEE

ART UNIT	PAPER NUMBER
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2682

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DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/652,697

Applicant(s)

KITCHIN, DUNCAN M.

Examiner

LEE NGUYEN

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The IDS filed 9/30/2002 has been considered and recorded in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4 and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshimi et al. (US 5,603,093).

Regarding claims 1, 9, Yoshimi teaches a method comprising:

determining a characteristic of local noise source at a first transceiver (mobile station, col. 3, lines 48-57); transmitting information about said local noise source to a second transceiver (BS, col. 3, line 52); and using said information to control a wireless transmission from said second transceiver to said first transceiver (col. 8, lines 4-11).

Regarding claim 2, the first network node reads on the mobile station and the second network node reads on the base station.

Regarding claims 3, 10, Yoshimi also teaches changing the state of transmission in the downlink radio wave to reduce interference (col. 8, lines 4-11), which inherently include the probability of interference.

Regarding claims 4, 11, Yoshimi also teaches transmitting information about the noise source at a given time (col. 7, lines 42-60), which inherently includes the probability of the transmission of the noise source.

Regarding claim 8, Yoshimi also teaches transmitting statistical model of the source (col. 3, lines 55-58) to predict the behavior of the noise source (col. 3, lines 57-63).

Regarding claim 12, Yoshimi teaches a transceiver (mobile station MS) comprising: inherently a module to determine a characteristic of a local noise source (col. 3, lines 51-52, measure); inherently a transmitter to transmit about the local noise source (col. 3, line 53, sent); a receiver (BS) that receives information about a local noise source remote to the transceiver MS to control a wireless transmission from said transceiver (col. 8, lines 4-11).

Regarding claim 13, the claim is interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 14, the claim is interpreted and rejected for the same reason as set forth in claim 7.

4. Claims 15-27 are rejected under 35 U.S.C. 102(b) as being anticipated by West (US 5,574,979).

Regarding claims 15, 19, 22, 25, West teaches a method comprising: receiving a noise signal at 4509 (fig. 45); identifying a characteristic in said noise signal without demodulating said signal (detected without demodulation using the SYNC circuit for measuring RSSI of the periodic noise, see figure 45, items 4509 and 4511, col. 61, line 38); and using said characteristic to identify said noise signal (col. 61, lines 25-30).

Regarding claim 16, West also teaches using said characteristic to predict the behavior of said signal without demodulating said signal (col. 61, lines 25-30).

Regarding claims 17-18, West also teaches time characteristic including periodicity to predict the future of said noise signal (see periodic interference, col. 61, lines 26-33).

Regarding claim 20, West also teaches controlling transmission to reduce the likelihood of interference at an intended transmission recipient (col. 61, lines 28-33).

Regarding claim 21, West also teaches circuit that develops a statistical estimation of the likelihood of the occurrence of the noise signal based on the nature of the characteristic (col. 61, lines 28-30).

Regarding claims 23, 26, West also teaches receiving a slotted noise signal and determined the probability that a given slot is occupied (periodic interference is present, col. 61, lines 29-30).

Regarding claim 24, the claim is interpreted and rejected for the same reason as set forth in claim 18.

Regarding claim 27, the claim is interpreted and rejected for the same reason as set forth in claim 18.

5. Claims 28-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Hess et al. (US 5,649,303) submitted by Applicant.

Regarding claim 28, Hess teaches a method comprising: measuring a signal strength (col. 5, line 30); determining when a radio frequency device is actively transmitting or receiving and analyzing the received

signal strength when the device is not actively transmitting or receiving (col. 5, lines 17-21, lines 22-34).

Regarding claim 29, Hess also teaches analyzing the signal strength to determine a characteristic of a noise signal (col. 5, lines 22-34).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimi et al. in view of West (US 5,574,979).

Regarding claim 5, Yoshimi fails to teach delay the transmission until the probability of interference is reduced. West teaches that both the user terminal 4503 and the base station 4505 (fig. 45) are subjected to periodic interference from noise source 4507, and both the user terminal and the base station delay the transmission until the time when the interference is absence or probability of zero (col. 61, lines 15-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made

to provide the teaching of West to the interference reduction of Yoshimi in order to efficiently make use of the interference free time.

Regarding claims 6-7, Yoshimi fails to teach identifying a characteristic of the local noise source without demodulating the noise source. However, West also teaches that the characteristic of a local noise source can be detected without demodulation using the SYNC circuit for measuring RSSI of the periodic noise (see figure 45, items 4509 and 4511, col. 61, line 38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the non-demodulation technique of West to the user terminal of Yoshimi in order to reduce the complexity of detection when the noise source is a periodic noise source.

8. Claims 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hess in view of West (US 5,574,979).

Regarding claim 30, Hess fails to teach identifying a characteristic of the local noise source without demodulating the noise source. However, West also teaches that the characteristic of a local noise source can be detected without demodulation using the SYNC circuit for measuring RSSI of the periodic noise (see figure 45, items 4509 and 4511, col. 61, line 38).


Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to provide the non-demodulation technique of West to the user terminal of Hess in order to reduce the complexity of detection when the noise source is a periodic noise source.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEE NGUYEN whose telephone number is (703)-308-5249. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VIVIAN CHIN can be reached on (703) 308-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

 10/2/03
LEE NGUYEN
Primary Examiner
Art Unit 2682